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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,390	09/27/2006	Frank Rudolph	72315	7937
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EXAMINER				
DANG, KET D				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/599,390

Applicant(s)

RUDOLPH ET AL.

Examiner

KET DANG

Art Unit

4118

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/US)
Paper No(s)/Mail Date 09/27/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/EP2005/006766, filed on June 23, 2005.

Claim Objections

2. Claim 16 is objected to because of the following informalities: In claim 16, "along a, preferably common feed axis" is incorrectly punctuated after "a". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Regarding claim 14, the phrase "and/or" renders the claim indefinite per se.
6. Regarding claim 16, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6, 8-9, & 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Penman (US 4,733,814).
9. Regarding claim 1, Penman discloses a pressure welding machine comprising a frame 10 (Fig. 1); two welding heads 18 (Fig. 1, the other head is on the opposite end), which are movable along a feed axis 17 (Fig.1); two adjusting units with feed drives for welding heads, two adjusting units 11/12 (Fig. 1, the other adjusting unit is on the opposite end) (Col. 3, lines 10-12) are being mounted axially movably at frame; a common adjusting element 22 (Fig. 1) and an adjusting drive 25 (Fig. 1), adjusting units 11/12 (Fig. 1) being connected among one another to adjusting drive by means of common adjusting element and being supported 22 (Fig. 1).
10. Regarding claims 2-6, 8-9, & 15, Penman discloses the claimed invention including wherein adjusting element 22 (Fig. 1) is designed as a continuous spindles with two threads 24 (Fig. 1, thread is defined in the Encarta Dictionary as "something connecting elements", which are directed in opposite directions; wherein threads are designed as motion threads, comprising ball (Col. 3, lines 36-42); wherein spindle 22 (Fig. 1) is arranged under welding heads 18 (Fig. 1, the other head is on the opposite end) and adjusting units in machine bed of frame 10 (Fig.1); wherein adjusting drive a has a controllable motor comprising an electric motor 28 (Fig. 1), for driving spindle 22 (Fig. 1); wherein frame 10 (Fig. 1) has a carriage guide for the positive-locking mounting and guiding of travel carriages of the welding heads 18 (Fig. 1, the other head

is on the opposite end) and adjusting units 11/12 (Fig. 1, the other adjusting unit is on the opposite end); wherein central clamping device (Col. 3, lines 12-18) has two spaced workpiece holders 20 (Fig.1, the other holder is on the opposite end) , which have holder carriages mounted movably at carriage guide (Col. 3, lines 2-9); wherein workpiece holders are connected to their respective associated adjusting unit 11 (Fig. 1) by a carriage adjuster; and further comprises a friction welding machine (Abstract).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penman (US 4,733,814) in view of Palmer (US 4,414,046).

13. Regarding claims 16-17, Penman discloses a method for pressure welding a plurality of workpieces along a preferably common feed axis 17 (Fig.1), the method comprising a pressure welding machine with a frame 10 (Fig.1), two welding heads 18 (Fig. 1, the other head is on the opposite end) movable along a feed axis 17 (Fig.1), and two adjusting units 11/12 (Fig. 1, the other adjusting unit is on the opposite end) (Col. 3, lines 10-12) with feed drives for welding heads; moving outer workpieces are moved relative to one another by two adjusting units 11/12 (Fig. 1) mounted axially movably at frame 10 (Fig. 1), except for supporting adjusting units in an adjustable manner while absorbing the pressure welding forces in a closed system of forces; and wherein

adjusting units and a central clamping device are positioned simultaneously and synchronously for a central workpiece. However, Palmer teaches supporting adjusting units in an adjustable manner while absorbing the pressure welding forces in a closed system of forces (Col. 2, lines 3-7); and wherein adjusting units and a central clamping device are positioned simultaneously (Col. 2, lines 51-54) and synchronously for a central workpiece (Col. 2, lines 40-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Penman's reference, to include supporting adjusting units and wherein adjusting units and a central clamping device are positioned simultaneously and synchronously for a central workpiece, as suggested and taught by Palmer, for the purpose of stability of the system, achieving uniform rotation of the assembly, and better welding with all components are in synchronization (Col. 2, lines 51-61).

14. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penman (US 4,733,814) in view of Gage (US 3,516,591).

15. Regarding claims 7 and 10, Penman discloses the claimed invention, except for a mobile central clamping device for a central workpiece, which is mounted movably at carriage guide and guided between welding heads; and wherein carriage adjusters have a carrier and a spring for relative evading motions at the connection point with workpiece holder. However, Gage teaches a mobile central clamping device for a central workpiece, which is mounted movably at carriage guide and guided between welding heads (Abstract); and wherein carriage adjusters have a carrier 22 (Fig. 3) and a spring 112 (Fig. 3) for relative evading motions at the connection point with workpiece

holder. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Penman's reference, to include a mobile central clamping device for a central workpiece and carriage adjusters, as suggested and taught by Gage, for the purpose of providing a flexibility and capability of the system during the welding operations.

16. Claims 11-14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penman (US 4,733,814) in view of Kimura (US 4,812,090).

17. Regarding claims 11-14 and 18, Penman discloses the claimed invention, except for a measuring means. However, Kimura teaches a measuring means 27 (Fig. 6) (Col.4, lines 58-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Penman's reference, to include a measuring means, as suggested and taught by Kimura, for the purpose of performing an accurate and efficient on the workpiece (Col. 2, lines 8-12).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawaura (JP 2000176656 A) discloses friction welding method and its equipment. And Hollenberg (US 3,613,982) discloses friction welder.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET DANG whose telephone number is (571)270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571)272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K.D./
Examiner, Art Unit 4118
/TU B HOANG/
Supervisory Patent Examiner, Art Unit 3742